

ABSTRACT OF THE DISCLOSURE

In a semiconductor pressure sensor manufacturing method of disposing an etching mask (50) at one-face (11) side of a monocrystal silicon substrate 10 in which the face-direction of the one face 11 corresponds to the (110)-face, and then carrying out anisotropic etching to form a recess portion (20) and a diaphragm (30) at the bottom surface side of the recess portion (20), the etching mask (51) is designed to have a cross-shaped opening portion (51) at which a first area extending along the $\langle 110 \rangle$ crystal axis direction and a second area extending along the $\langle 100 \rangle$ crystal axis direction cross each other, the area of the opening portion (51a) of the overlap area between the first and second areas in the opening portion (51) being set to be smaller than the area of the diaphragm (30).